

REMARKS

Claims 24 to 28, 30 to 35, 37, 39 and 40 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 24, 26 and 36 were rejected under 35 U.S.C. §102(b) as being anticipated by either one of Christiansen et al. (U.S. 5,533,078) or Grattier (U.S. 5,180,545). Claims 25, 28, 30, 37 and 39 were rejected under 35 U.S.C. §102(b) as being anticipated by Christiansen et al. (U.S. 5,533,078). Claims 27, 32, 34 and 35 were rejected under 35 U.S.C. §102(b) as being anticipated by Grattier (U.S. 5,180,545).

Claims 24, 26, 36, 37, 39 and 40 have been amended.

Claim 25 has been canceled without traverse.

Reconsideration of the application based on the following remarks is respectfully requested.

35 U.S.C. §112 Rejections

Claims 24 to 28, 30 to 35, 37, 39 and 40 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 24, 26 and 37 have been amended in response to the Office Action.

It is respectfully submitted that Claim 24 is directed to a terminal end piece. Therefore antecedent basis for the end piece of claim 26 can be found in the beginning of claim 26.

Withdrawal of the rejections under 35 U.S.C. §112 is respectfully requested.

35 U.S.C. §102 Rejections

Claims 24, 26 and 36 were rejected under 35 U.S.C. §102(b) as being anticipated by either one of Christiansen et al. (U.S. 5,533,078) or Grattier (U.S. 5,180,545).

Claims 24 and 36 have been amended to include the limitation of previously presented claim 25.

Withdrawal of the rejections of claims 24, 26 and 36 under 35 U.S.C. §102 as being anticipated by either one of Christiansen et al. (U.S. 5,533,078) or Grattier (U.S. 5,180,545) is respectfully requested.

Claims 25, 28, 30, 37 and 39 were rejected under 35 U.S.C. §102(b) as being anticipated by Christiansen et al. (U.S. 5,533,078).

Christiansen et al. discloses a “pressurized water reactor nuclear fuel assembly 10 comprising a lower tie plate 12, guide tubes 14, fuel rods 18, which are spaced radially and supported by spacer grids 16a, 16b, 16c, 16d, 16e, and 16f which are spaced along the guide tubes, instrumentation tube 28, and upper tie plate 37 attached to the upper ends of the guide tubes.” (Col. 2, lines 61 to 67).

Claim 24 has been amended to incorporate claim 25 and recites “a terminal end-piece for a fuel assembly of a pressurized water nuclear reactor, the assembly comprising fuel rods and a skeleton for supporting the fuel rods, the fuel rods extending in a longitudinal direction and being arranged at nodes of a substantially regular network, the fuel rods having outer claddings closed by an upper and a lower plug, the support skeleton comprising two terminal end-pieces and guide tubes that connect the terminal end-pieces, the fuel rods being arranged longitudinally between the terminal end-pieces, comprising:

noses for orientating flow of a coolant fluid of the reactor along adjacent longitudinal ends of the fuel rods, the noses being arranged at least one of in the nodes of the substantially regular network in order to be positioned in a longitudinal continuation of at least some of the fuel rods and at least some of the guide tubes of the support skeleton.

wherein the noses converge in a direction that is orientated towards an outer side of the fuel assembly.”

Applicant agrees that the term “noses” does not require protrusion beyond the outer side. Christiansen et al. fails to teach or show “wherein the noses converge in a direction that is orientated towards an outer side of the fuel assembly,” as recited in claim 24. Figure 5 of Christiansen et al. does not show such a limitation, and in fact shows the vertical extensions of support housing 50 converging toward the fuel rods. (See Figure 6). This is the exact opposite of the present invention as now claimed.

Withdrawal of the rejection of claims under 35 U.S.C. §102(b) is respectfully requested.

Claims 27, 32, 34 and 35 were rejected under 35 U.S.C. §102(b) as being anticipated by Grattier (U.S. 5,180,545).

Grattier discloses a lower end nozzle of a fuel assembly having a particle retention device and fuel assembly having such an end nozzle. “This end nozzle comprises an adaptor plate 2, through which water-passage holes pass, and supporting feet 3, which come to rest on the lower core plate 4 of the reactor when the fuel assembly is in operation.” (Col. 3, lines 36 to 39).

In light of the discussion above, withdrawal of the rejection of claims 27, 32, 34 and 35 is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance and applicants respectfully request such action.

If any additional fees are deemed to be due at this time, the Assistant Commissioner is authorized to charge payment of the same to Deposit Account No. 50-0552.

Respectfully submitted,

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